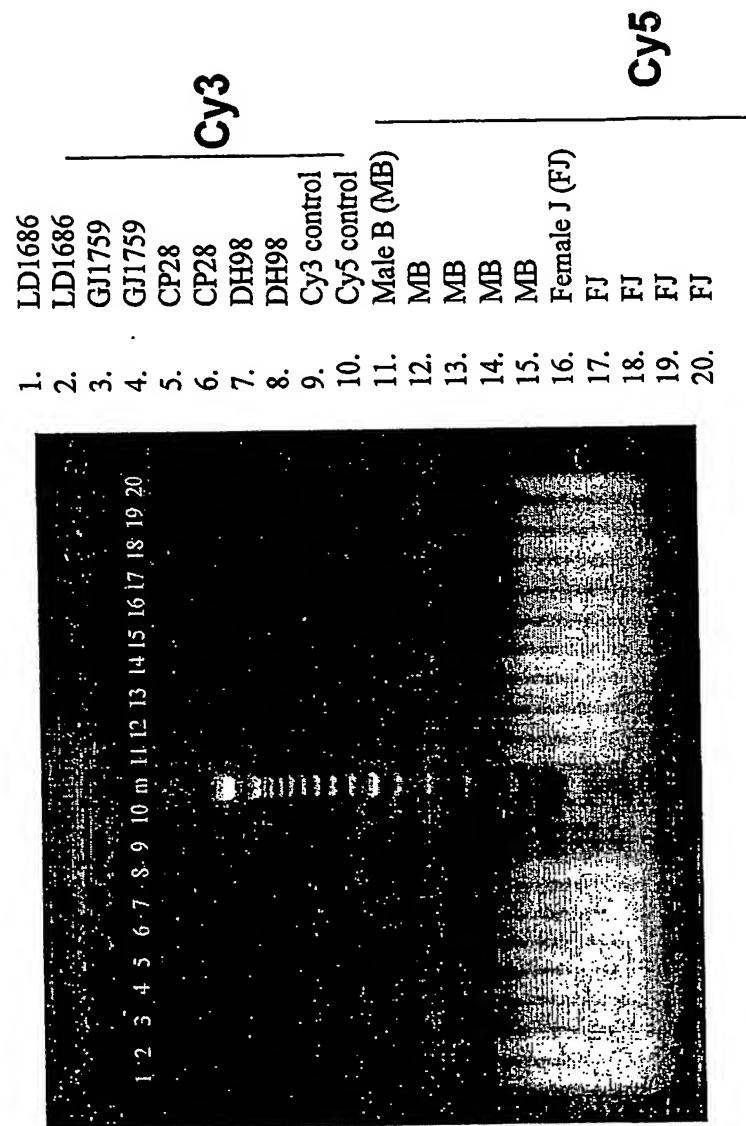


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**Figure 1****BEST AVAILABLE COPY**

SAMPLE # 8 (MA 1557 / FEMALE REFERENCE) – CONFIRMED MALE

MA1557/Female reference (46, XX) – confirmed male

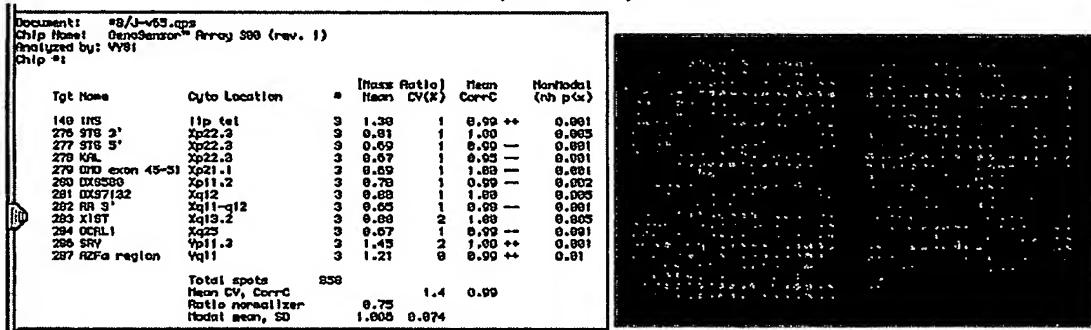


Figure 2

	Male 1 vs Female ref.	Male 2 vs Female ref.	Male 3 vs Female ref.	Male 4 vs Female ref.	Male 5 vs Female ref.
SAMPLE	SW-86-AP	PP76-AP	JDG813-AP	HT947-AP	JH769-AP
Name	T/R P<0.005				
D21S378	0.97 0	0.94 0	1.02 0	0.98 0	0.93 0
RUNX1(AML1)	0.91 0	0.93 0	0.88 0	0.96 0	0.89 0
DYRK1A	0.95 0	0.93 0	0.89 0	0.85 0	1.04 0
D21S341,D21S342 21q22,3	0.93 0	0.97 0	0.95 0	1.00 0	0.92 0
PCNT2(KEN)	21q tel 1.11 0	1.15 0	1.14 0	1.10 0	1.04 0
21QTEL08	21q tel 0.98 0	0.99 0	1.01 0	0.98 0	1.01 0
DXYS129	X/Yp tel 0.97 0	1.00 0	0.96 0	1.02 0	0.97 0
STS 3'	Xp22.3				0.95 0
STS 5'	Xp22.3				0.81 0
KAL	Xp22.3				0.86 0
DMD exon 45-51	Xp21.1				0.86 0
DXS580	Xp11.2				0.95 0
DXS7132	Xq12 0.87 0	0.94 0	0.80 0	0.85 0	0.84 0
AR 3'	Xq11-q12				
XIST	Xq13.2 0.85 0			0.80 0	0.87 0
OCRL1	Xq25				1.00 0
EST CDY16c07	X/Yq tel 0.94 0	0.99 0	0.95 0	1.01 0	0.97 0
SRY	Yp11.3				1.04 0
AZFa region	Yq11				1.02 0

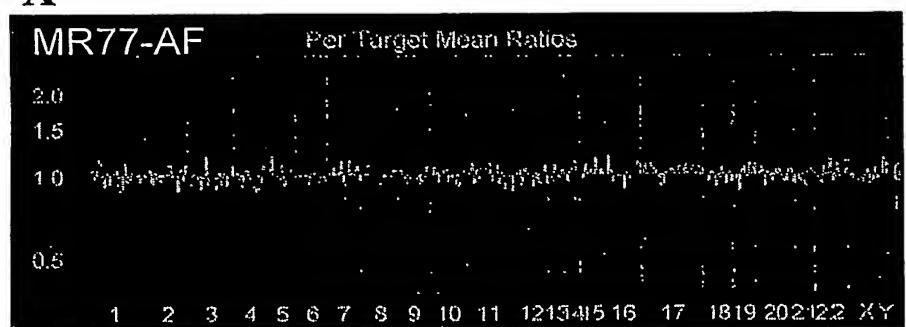
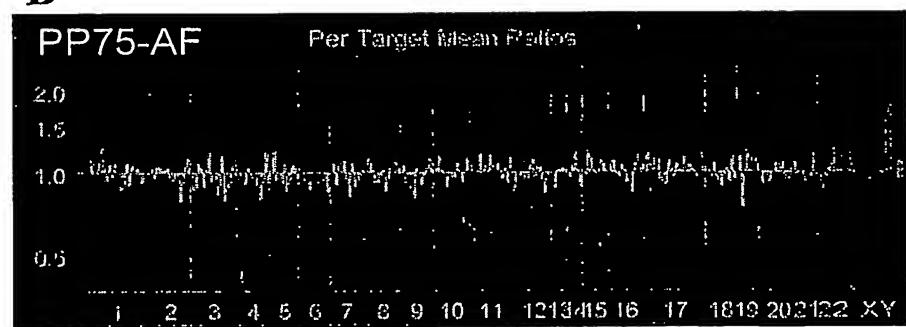
	Male 6 vs Female ref.	Male 7 vs Female ref.	Male 8 vs Female ref.	Male 9 vs Female ref.	Male 10 vs Female ref.
SAMPLE	SD48-AP	RH80-AP	MA1557-AP	LD1688-AP	JG1575-AP
Name	T/R P<0.005	T/R P<0.005	T/R P<0.005	T/R P<0.001	T/R P<0.001
D21S378	0.95 0	0.98 0	0.95 0	0.84 0	0.94 0
RUNX1(AML1)	0.95 0	0.90 0	1.03 0	0.95 0	0.91 0
DYRK1A	0.98 0	0.98 0	0.99 0	0.90 0	0.88 0
D21S341,D21S342 21q22,3	0.94 0	1.03 0	1.04 0	0.94 0	1.02 0
PCNT2(KEN)	21q tel 1.08 0	1.04 0	1.02 0	1.09 0	1.11 0
21QTEL08	21q tel 1.02 0	1.02 0	1.07 0	0.99 0	0.89 0
DXYS129	X/Yp tel 0.98 0	0.97 0	0.97 0	1.07 0	1.10 0
STS 3'	Xp22.3	0.87 0	1	1	
STS 5'	Xp22.3				
KAL	Xp22.3				
DMD exon 45-51	Xp21.1				
DXS580	Xp11.2	0.80 0	0	1	
DXS7132	Xq12 0.83 0	0.84 0	1	1	
AR 3'	Xq11-q12	0.92 0	1	1	
XIST	Xq13.2	0.85 0	1	1	
OCRL1	Xq25				
EST CDY16c07	X/Yq tel 0.98 0	0.94 0	1.03 0	0.9113 0	1.02 0
SRY	Yp11.3				
AZFa region	Yq11				

	T 21 Male 11 vs Female ref.	Female 1 vs Male ref.	Female 2 vs Male ref.	Female 3 vs Male ref.	Female 4 vs Male ref.
SAMPLE	02-1636-AP	MR77-AP	OP28-AP	DH98-AP	PR861-AP
Name	T/R P<0.005	T/R P<0.005	T/R P<0.001	T/R P<0.001	T/R P<0.005
D21S378	1.03 0	0.96 0	0.87 0	1.01 0	0.98 0
RUNX1(AML1)	1.05 0	0.98 0	0.89 0	0.92 0	0.96 0
DYRK1A	1.05 0.05	0.91 0	0.82 0	0.88 0	1.05 0
D21S341,D21S342 21q22,3	0.95 0.05	1.03 0	0.94 0	0.99 0	0.92 0
PCNT2(KEN)	21q tel 0.01	1.04 0	1.02 0	1.03 0	1.03 0
21QTEL08	21q tel 0.05	1.01 0	1.05 0	0.92 0	1.03 0
DXYS129	X/Yp tel 0.89 0	1.00 0	1.01 0	1.01 0	0.94 0
STS 3'	Xp22.3 0.84 0	0.98 0	0.88 0	0.95 0	1
STS 5'	Xp22.3	0.99 0	0.95 0	0.97 0	1
KAL	Xp22.3	0.95 0	0.94 0	0.97 0	1
DMD exon 45-51	Xp21.1	0.94 0	0.99 0	1.12 0	1
DXS580	Xp11.2	0	0.99 0	1.05 0	1.17 0
DXS7132	Xq12	1.03 0	1.05 0	1.02 0	1.20 0
AR 3'	Xq11-q12	0.94 0	1.05 0	1.02 0	1
XIST	Xq13.2 0.85 0	0.98 0	1.05 0	1.02 0	1
OCRL1	Xq25	1.05 0	1.07 0	1.05 0	1
EST CDY16c07	X/Yq tel 0.98 0	1.15 0	0.97 0	0.92 0	1.02 0
SRY	Yp11.3	1.15 0	1.16 0	1.09 0	1
AZFa region	Yq11 1.19 0	1.09 0	1	1	1

Figure 3

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A**B****Figure 4**

Cytogenetic Location	Locus Name	Male 1 AF/ 46, XX Reference		Male 2 AF/ 46, XX Reference		Male, X-Female 1 AF/ 46, XX Reference	
		T/R	P Value	T/R	P Value	T/R	P Value
21q11.2	D21S378	0.95	0.5	0.98	0.4	0.98	0.5
21q22.3	RUNX1(AML1)	1.03	0.6	0.80	0.1	0.89	0.1
21q22	DYRK1A	0.99	0.5	0.98	0.5	0.93	0.2
21q22.3	D21S341,D21S342	1.04	0.5	1.03	0.5	0.92	0.1
21q tel	PCNT2(KEN)	1.02	0.6	1.04	0.4	1.12	0.1
21q tel	21QTEL08	1.07	0.6	1.02	0.8	1.02	0.5
Xp22.3	STS 3'	0.81	0.005	0.87	0.03	0.74	<0.001
Xp22.3	STS 5'	0.69	<0.001	0.87	<0.001	0.65	<0.001
Xp22.3	KAL	0.93	0.004	0.71	<0.001	0.71	<0.001
Xp21.1	DMD exon 45:51	0.69	0.001	0.80	0.009	0.67	<0.001
Xp11.2	DXS680	0.78	0.002	0.84	0.1	0.85	0.1
Xq12	DXS7132	0.80	0.005	0.92	0.1	0.88	0.1
Xq11-q12	AR 3'	0.88	0.001	0.45	<0.001	0.44	<0.001
Xq13.2	XIST	0.81	0.008	0.85	0.1	0.78	0.002
Xq25	OCRL1	0.67	0.001	0.72	0.001	0.58	<0.001
Yp11.3	SRY	1.45	0.001	1.36	<0.001	1.15	0.1
Yq11	AZFa.region	1.21	0.01	1.45	<0.001	1.17	0.1

Cytogenetic Location	Locus Name	Tri. 21-Female 2 AF/ 46, XX Reference		Tri. 21-Male 3 AF/ 46, XX Reference		Tri. 21-Male 4 AF/ 46, XX Reference	
		T/R	P Value	T/R	P Value	T/R	P Value
21q11.2	D21S378	1.05	0.2	1.10	0.1	1.03	0.5
21q22.3	RUNX1(AML1)	1.21	<0.001	1.15	0.1	1.24	0.5
21q22	DYRK1A	1.21	0.01	1.26	<0.002	1.25	0.05
21q22.3	D21S341,D21S342	1.23	0.003	1.15	0.04	1.27	0.05
21q tel	PCNT2(KEN)	1.35	<0.001	1.42	<0.001	1.38	0.01
21q tel	21QTEL08	1.33	<0.001	1.22	0.005	1.27	0.05
Xp22.3	STS 3'	1.06	0.3	0.82	0.009	0.84	0.5
Xp22.3	STS 5'	0.93	0.2	0.65	<0.001	0.70	<0.005
Xp22.3	KAL	0.97	0.5	0.74	<0.001	0.69	0.02
Xp21.1	DMD exon 45:51	0.95	0.4	0.79	<0.001	0.55	0.001
Xp11.2	DXS680	1.00	0.5	0.86	0.1	0.80	0.5
Xq12	DXS7132	0.95	0.3	0.89	0.1	0.72	0.01
Xq11-q12	AR 3'	0.82	0.008	0.55	<0.001	0.59	0.001
Xq13.2	XIST	0.96	0.3	0.81	0.009	0.85	0.6
Xq25	OCRL1	1.14	0.1	0.73	<0.001	0.71	0.005
Yp11.3	SRY	1.16	0.1	1.50	<0.001	1.55	<0.001
Yq11	AZFa.region	1.11	0.1	1.66	<0.001	1.19	0.6

Figure 5

Cytogenetic Location	Locus-Name	Male:5'AF/ 46,XY Reference		Male:5'AF/ 46,XX Reference		Male:6'AF/ 46,XY Reference		Male:6'AF/ 46,XX Reference	
		T/R	P-Value	T/R	P-Value	T/R	P-Value	T/R	P-Value
21q11.2	D21S378	0.94	0.5	0.69	0.5	0.83	0.5	0.82	0.1
21q22.3	RUNX1(AML1)	0.93	0.5	0.92	0.5	0.93	0.5	0.98	0.5
21q22	DYRK1A	0.99	0.5	1.00	0.5	1.00	0.5	1.01	0.5
21q22.3	D21S341,D21S342	0.96	0.5	0.95	0.5	0.91	0.8	0.94	0.5
21q tel	PCNT2(KEN)	1.09	0.5	1.09	0.5	1.10	0.5	1.09	0.5
21q tel	21QTEL08	1.06	0.5	1.13	0.5	1.15	0.5	1.14	0.5
Xp22.3	STS-3'	0.89	0.5	0.59	0.001	0.97	0.5	0.80	0.001
Xp22.3	STS-5'	0.89	0.5	0.58	0.001	0.95	0.5	0.89	0.001
Xp22.3	KAL	1.02	0.5	1.01	0.5	1.01	0.5	0.87	0.001
Xp21.1	DMD:exon 45-51	1.01	0.6	0.50	0.001	0.83	0.6	0.60	0.001
Xp11.2	DXS580	0.96	0.5	0.79	0.002	0.83	0.5	0.67	0.001
Xq12	DXS7132	0.94	0.5	0.82	0.005	0.78	0.02	0.67	0.001
Xq11-q12	AR-3'	1.02	0.5	0.64	0.001	0.93	0.5	0.65	0.001
Xq13.2	XIST	0.95	0.5	0.71	0.001	0.90	0.5	0.69	0.001
Xq25	OCRL1	1.02	0.5	0.62	0.001	0.98	0.5	0.69	0.001
Yp11.3	SRY	0.96	0.5	2.03	0.001	0.86	0.5	2.13	0.001
Yq11	AZFa region	1.04	0.5	1.29	0.01	0.94	0.5	1.20	0.5

Cytogenetic Location	Locus-Name	Female:3'AF/ 46,XY Reference		Female:3'AF/ 46,XX Reference		Female:4'AF/ 46,XY Reference		Female:4'AF/ 46,XX Reference	
		T/R	P-Value	T/R	P-Value	T/R	P-Value	T/R	P-Value
21q11.2	D21S378	0.85	0.5	0.92	0.5	0.88	0.5	0.94	0.5
21q22.3	RUNX1(AML1)	0.90	0.5	0.91	0.5	0.93	0.5	0.93	0.5
21q22	DYRK1A	1.08	0.5	0.88	0.5	1.01	0.5	0.96	0.5
21q22.3	D21S341,D21S342	0.92	0.5	0.94	0.5	0.98	0.5	0.91	0.5
21q tel	PCNT2(KEN)	1.07	0.5	1.12	0.5	1.03	0.5	1.08	0.5
21q tel	21QTEL08	1.08	0.5	1.00	0.5	0.91	0.5	1.01	0.5
Xp22.3	STS-3'	1.70	0.001	0.94	0.5	1.49	0.001	0.92	0.5
Xp22.3	STS-5'	1.42	0.004	0.96	0.5	1.34	0.004	0.99	0.5
Xp22.3	KAL	1.46	0.001	0.80	0.5	1.36	0.001	0.98	0.5
Xp21.1	DMD:exon 45-51	1.37	0.002	0.86	0.5	1.44	0.001	0.93	0.5
Xp11.2	DXS580	1.09	0.5	0.93	0.5	1.07	0.5	0.93	0.5
Xq12	DXS7132	0.84	0.5	0.89	0.5	1.07	0.5	0.92	0.5
Xq11-q12	AR-3'	1.52	0.001	0.94	0.5	1.37	0.001	0.98	0.5
Xq13.2	XIST	1.20	0.5	0.92	0.5	1.12	0.5	0.94	0.5
Xq25	OCRL1	1.79	0.001	0.92	0.5	1.60	0.001	0.99	0.5
Yp11.3	SRY	0.048	0.001	1.08	0.5	0.66	0.001	1.12	0.5
Yq11	AZFa region	0.065	0.001	1.09	0.5	0.77	0.008	0.98	0.5

Figure 6

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Cytogenetic Location	Locus Name	Male 7 AF/ 46, XX Reference		Male 7 Cells/ 46, XX Reference		Male 8 AF/ 46, XX Reference		Male 8 Cells/ 46, XX Reference		Male 9 AF/ 46, XX Reference		Male 9 Cells/ 46, XX Reference	
		T/R	P Value	T/R	P Value	T/R	P Value	T/R	P Value	T/R	P Value	T/R	P Value
21q11.2	D21S378	0.97	0.4	1.05	0.2	0.94	0.2	1.01	0.9	0.98	0.5	1.03	0.4
21q22.3	RUNX1(AML1)	0.81	0.2	0.84	0.1	0.93	0.2	0.89	0.5	0.99	0.2	0.90	0.1
21q22	DYRK1A	0.85	0.3	0.97	0.2	0.93	0.2	1.04	0.2	0.85	0.4	0.91	0.2
21q22.3	D21S341,D21S342	0.83	0.2	0.89	0.5	0.97	0.4	1.06	0.5	1.00	0.5	0.91	0.1
21q tel	PCNT2(KEN)	1.11	0.1	0.88	0.4	1.15	0.1	1.08	0.1	1.10	0.2	1.11	0.1
21q tel	21QTEL08	0.88	0.6	1.02	0.4	0.89	0.4	1.01	0.5	0.88	0.3	1.02	0.4
Xp22.3	STS 3'	1.05	<0.001	1.07	<0.001	1.05	<0.001	1.07	<0.001	1.07	<0.001	1.07	<0.001
Xp22.3	STS 5'	1.05	<0.001	1.05	<0.001	1.05	<0.001	1.05	<0.001	1.05	<0.001	1.05	<0.001
Xp22.3	KAL	1.05	<0.001	1.05	<0.001	1.05	<0.001	1.05	<0.001	1.05	<0.001	1.05	<0.001
Xp21.1	DMD exon 45-51	1.05	<0.001	1.05	<0.001	1.05	<0.001	1.05	<0.001	1.05	<0.001	1.05	<0.001
Xp11.2	DXS580	0.80	<0.001	0.81	<0.001	0.81	<0.001	0.81	<0.001	0.81	<0.001	0.80	<0.001
Xq12	DXS7132	0.87	0.2	0.84	<0.001	0.84	<0.001	0.84	0.5	0.85	0.2	0.81	0.2
Xq11-q12	AR 3'	1.05	<0.001	1.05	<0.001	1.05	<0.001	1.05	<0.001	1.05	<0.001	1.05	<0.001
Xq13.2	XIST	0.85	0.4	0.85	<0.001	0.85	<0.001	0.85	<0.001	0.85	<0.001	0.85	<0.001
Xq25	OCRL1	1.05	<0.001	1.05	<0.001	1.05	<0.001	1.05	<0.001	1.05	<0.001	1.05	<0.001
Yp11.3	RY	1.48	<0.001	1.59	<0.001	1.65	<0.001	1.73	<0.001	1.35	<0.004	1.59	<0.001
Yq11	AZFa region	1.35	<0.001	1.67	<0.001	1.78	<0.001	1.93	<0.001	1.43	<0.001	1.61	<0.001
Cytogenetic Location	Locus Name	Male 10 AF/ 46, XX Reference		Male 10 Cells/ 46, XX Reference		Male 11 AF/ 46, XX Reference		Male 11 Cells/ 46, XX Reference		Male 12 AF/ 46, XX Reference		Male 12 Cells/ 46, XX Reference	
		T/R	P Value	T/R	P Value	T/R	P Value	T/R	P Value	T/R	P Value	T/R	P Value
21q11.2	D21S378	0.95	0.2	1.02	0.5	1.02	0.5	0.91	0.3	0.91	0.3	0.91	0.3
21q22.3	RUNX1(AML1)	0.95	0.2	1.02	0.3	0.88	0.2	1.05	0.4	0.99	0.2	0.99	0.2
21q22	DYRK1A	0.98	0.3	1.08	0.1	0.89	0.3	1.09	0.3	0.98	0.6	0.98	0.6
21q22.3	D21S341,D21S342	0.94	0.2	0.99	0.5	0.95	0.5	0.98	0.6	0.98	0.6	0.98	0.6
21q tel	PCNT2(KEN)	1.08	0.1	0.88	0.2	1.14	0.1	1.12	0.1	1.12	0.1	1.12	0.1
21q tel	21QTEL08	1.02	0.5	1.03	0.4	1.01	0.5	1.08	0.4	1.08	0.4	1.08	0.4
Xp22.3	STS 3'	1.05	<0.001	1.07	<0.001	1.05	<0.001	1.05	<0.001	1.05	<0.001	1.05	<0.001
Xp22.3	STS 5'	1.05	<0.001	1.05	<0.001	1.05	<0.001	1.05	<0.001	1.05	<0.001	1.05	<0.001
Xp22.3	KAL	1.05	<0.001	1.05	<0.001	1.05	<0.001	1.05	<0.001	1.05	<0.001	1.05	<0.001
Xp21.1	DMD exon 45-51	1.05	<0.001	1.05	<0.001	1.03	<0.001	1.05	<0.001	1.05	<0.001	1.05	<0.001
Xp11.2	DXS580	0.80	<0.001	0.81	<0.001	0.80	<0.001	0.80	<0.001	0.80	<0.001	0.80	<0.001
Xq12	DXS7132	0.83	0.03	0.83	<0.001	0.83	<0.001	0.83	0.10	0.83	<0.001	0.83	<0.001
Xq11-q12	AR 3'	1.05	<0.001	1.05	<0.001	1.05	<0.001	1.05	<0.001	1.05	<0.001	1.05	<0.001
Xq13.2	XIST	0.85	<0.001	0.85	<0.001	0.85	<0.001	0.85	<0.001	0.85	<0.001	0.85	<0.001
Xq25	OCRL1	1.05	<0.001	1.05	<0.001	1.05	<0.001	1.05	<0.001	1.05	<0.001	1.05	<0.001
Yp11.3	RY	1.57	<0.001	1.48	<0.001	1.74	<0.001	1.37	<0.001	1.48	<0.001	1.48	<0.001
Yq11	AZFa region	1.49	<0.001	1.65	<0.001	1.62	<0.001	1.48	<0.001	1.48	<0.001	1.48	<0.001
Cytogenetic Location	Locus Name	Female 5 AF/ 46, XX Reference		Female 5 Cells/ 46, XX Reference		Female 6 AF/ 46, XX Reference		Female 6 Cells/ 46, XX Reference		Female 7 AF/ 46, XX Reference		Female 7 Cells/ 46, XX Reference	
		T/R	P Value	T/R	P Value	T/R	P Value	T/R	P Value	T/R	P Value	T/R	P Value
21q11.2	D21S378	1.10	0.2	1.08	0.2	0.98	0.3	1.02	0.4	1.02	0.4	1.02	0.4
21q22.3	RUNX1(AML1)	1.09	0.2	0.98	0.4	0.98	0.4	0.98	0.3	0.98	0.3	0.98	0.3
21q22	DYRK1A	1.12	0.2	1.05	0.3	0.91	0.1	1.02	0.2	1.02	0.2	1.02	0.2
21q22.3	D21S341,D21S342	0.98	0.4	0.98	0.4	1.03	0.5	1.00	0.5	1.00	0.5	1.00	0.5
21q tel	PCNT2(KEN)	1.00	0.5	1.03	0.4	1.04	0.3	0.99	0.3	1.00	0.5	1.00	0.5
21q tel	21QTEL08	1.12	0.2	1.05	0.2	1.01	0.4	1.01	0.4	1.01	0.4	1.01	0.4
Xp22.3	STS 3'	1.08	0.3	1.00	0.4	0.98	0.5	1.04	0.1	1.04	0.1	1.04	0.1
Xp22.3	STS 5'	0.94	0.3	0.88	0.1	0.99	0.6	1.01	0.1	1.01	0.5	1.01	0.5
Xp22.3	KAL	0.97	0.2	0.97	0.2	0.92	0.4	0.95	0.4	0.99	0.4	0.99	0.4
Xp21.1	DMD exon 45-51	1.14	0.1	1.03	0.5	0.94	0.1	1.05	0.2	1.05	0.2	1.05	0.2
Xp11.2	DXS580	0.92	0.2	0.80	0.2	0.98	0.4	1.06	0.3	0.98	0.4	1.06	0.4
Xq12	DXS7132	1.05	0.3	1.05	0.3	1.03	0.3	1.03	0.3	0.98	0.5	0.98	0.5
Xq11-q12	AR 3'	0.84	0.3	0.69	0.1	0.94	0.2	0.88	0.2	0.88	<0.001	0.88	0.2
Xq13.2	XIST	0.84	0.3	1.02	0.5	0.96	0.2	1.07	0.1	1.07	0.1	1.07	0.1
Xq25	OCRL1	0.89	0.2	0.84	0.1	1.05	0.5	0.98	0.5	0.98	0.5	0.98	0.5
Yp11.3	RY	0.94	0.4	1.02	0.5	1.15	0.01	0.98	0.1	0.98	0.6	0.98	0.6
Yq11	AZFa region	0.94	0.3	1.01	0.9	1.09	0.1	1.08	0.03	1.08	0.03	1.08	0.03

Figure 7

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